

## SEQUENCE LISTING

<110> Federspiel, Mark J.

<120> Methods to inhibit infectious agent transmission

<130> 07039-278001

<150> US 09/980,526

<151> 2001-11-15

<150> US 60/135,631

<151> 1999-05-24

<160> 34

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 47

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 1

gcgcatgcag atctgatgct taaacaggta gaaattttca ccgatgg

47

<210> 2

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 2

gctgctgcgt cgacttaaac ttcaacttgg tagcctgtat cttcc

45

<210> 3

<211> 659

<212> PRT

<213> Porcine endogenous retrovirus

<400> 3

Met His Pro Thr Leu Ser Arg Arg His Leu Pro Ile Arg Gly Gly Lys

1 5 10 15

Pro Lys Arg Leu Lys Ile Pro Leu Ser Phe Ala Ser Ile Ala Trp Phe

20 25 30

Leu Thr Leu Ser Ile Thr Pro Gln Val Asn Gly Lys Arg Leu Val Asp

35 40 45

Ser Pro Asn Ser His Lys Pro Leu Ser Leu Thr Trp Leu Leu Thr Asp

50 55 60

Ser Gly Thr Gly Ile Asn Ile Asn Ser Thr Gln Gly Glu Ala Pro Leu

65 70 75 80

Gly Thr Trp Trp Pro Glu Leu Tyr Val Cys Leu Arg Ser Val Ile Pro

85 90 95

Gly Leu Asn Asp Gln Ala Thr Pro Pro Asp Val Leu Arg Ala Tyr Gly

100 105 110

Phe Tyr Val Cys Pro Gly Pro Pro Asn Asn Glu Glu Tyr Cys Gly Asn

115 120 125

Pro Gln Asp Phe Phe Cys Lys Gln Trp Ser Cys Val Thr Ser Asn Asp

130 135 140

Gly Asn Trp Lys Trp Pro Val Ser Gln Gln Asp Arg Val Ser Tyr Ser

145 150 155 160

Phe Val Asn Asn Pro Thr Ser Tyr Asn Gln Phe Asn Tyr Gly His Gly

165 170 175

Arg Trp Lys Asp Trp Gln Gln Arg Val Gln Lys Asp Val Arg Asn Lys

180 185 190

Gln Ile Ser Cys His Ser Leu Asp Leu Asp Tyr Leu Lys Ile Ser Phe

195                    200                    205  
Thr Glu Lys Gly Lys Gln Glu Asn Ile Gln Lys Trp Val Asn Gly Met  
210                    215                    220  
Ser Trp Gly Ile Val Tyr Tyr Arg Gly Ser Gly Arg Lys Lys Gly Ser  
225                    230                    235                    240  
Val Leu Thr Ile Arg Leu Arg Ile Glu Thr Gln Met Glu Pro Pro Val  
245                    250                    255  
Ala Ile Gly Pro Asn Lys Gly Leu Ala Glu Gln Gly Pro Pro Ile Gln  
260                    265                    270  
Glu Gln Arg Pro Ser Pro Asn Pro Ser Asp Tyr Asn Thr Thr Ser Gly  
275                    280                    285  
Ser Val Pro Thr Glu Pro Asn Ile Thr Ile Lys Thr Gly Ala Lys Leu  
290                    295                    300  
Phe Asn Leu Ile Gln Gly Ala Phe Gln Ala Leu Asn Ser Thr Thr Pro  
305                    310                    315                    320  
Glu Ala Thr Ser Ser Cys Trp Leu Cys Leu Ala Ser Gly Pro Pro Tyr  
325                    330                    335  
Tyr Glu Gly Met Ala Arg Gly Gly Lys Phe Asn Val Thr Lys Glu His  
340                    345                    350  
Arg Asp Gln Cys Thr Trp Gly Ser Gln Asn Lys Leu Thr Leu Thr Glu  
355                    360                    365  
Val Ser Gly Lys Gly Thr Cys Ile Gly Met Val Pro Pro Ser His Gln  
370                    375                    380  
His Leu Cys Asn His Thr Glu Ala Phe Asn Arg Thr Ser Glu Ser Gln  
385                    390                    395                    400  
Tyr Leu Val Pro Gly Tyr Asp Arg Trp Trp Ala Cys Asn Thr Gly Leu  
405                    410                    415  
Thr Pro Cys Val Ser Thr Leu Val Phe Asn Gln Thr Lys Asp Phe Cys  
420                    425                    430  
Val Met Val Gln Ile Val Pro Arg Val Tyr Tyr Pro Glu Lys Ala  
435                    440                    445  
Val Leu Asp Glu Tyr Asp Tyr Arg Tyr Asn Arg Pro Lys Arg Glu Pro  
450                    455                    460  
Ile Ser Leu Thr Leu Ala Val Met Leu Gly Leu Gly Val Ala Ala Gly  
465                    470                    475                    480  
Val Gly Thr Gly Thr Ala Ala Leu Ile Thr Gly Pro Gln Gln Leu Glu

485	490	495
Lys Gly Leu Ser Asn Leu His Arg Ile Val Thr Glu Asn Leu Gln Ala		
500	505	510
Leu Glu Lys Ser Val Ser Asn Leu Glu Glu Ser Leu Thr Ser Leu Ser		
515	520	525
Glu Val Val Leu Gln Asn Arg Arg Gly Leu Asp Leu Leu Phe Leu Lys		
530	535	540
Glu Gly Gly Leu Cys Val Ala Leu Lys Glu Glu Cys Cys Phe Tyr Val		
545	550	555
Asp His Ser Gly Ala Ile Arg Asp Ser Met Asn Lys Leu Arg Glu Arg		
565	570	575
Leu Glu Lys Arg Arg Glu Lys Glu Thr Thr Gln Gly Trp Phe Glu		
580	585	590
Gly Trp Phe Asn Arg Ser Pro Trp Leu Ala Thr Leu Leu Ser Ala Leu		
595	600	605
Thr Gly Pro Leu Ile Val Leu Leu Leu Leu Leu Thr Val Gly Pro Cys		
610	615	620
Ile Ile Asn Lys Leu Ile Ala Phe Ile Arg Glu Arg Ile Ser Ala Val		
625	630	635
Gln Ile Met Val Leu Arg Gln Gln Tyr Gln Ser Pro Ser Ser Arg Glu		
645	650	655
Ala Gly Arg		

<210> 4

<211> 660

<212> PRT

<213> Porcine endogenous retrovirus

<400> 4

Met His Pro Thr Leu Ser Arg Arg His Leu Pro Ile Arg Gly Gly Lys			
1	5	10	15
Pro Lys Arg Leu Lys Ile Pro Leu Ser Phe Ala Ser Ile Ala Trp Phe			
20	25	30	
Leu Thr Leu Ser Ile Thr Pro Gln Val Asn Gly Lys Arg Leu Val Asp			
35	40	45	

Ser Pro Asn Ser His Lys Pro Leu Ser Leu Thr Trp Leu Leu Thr Asp  
50 55 60  
Ser Gly Thr Gly Ile Asn Ile Asn Ser Thr Gln Gly Glu Ala Pro Leu  
65 70 75 80  
Gly Thr Trp Trp Pro Glu Leu Tyr Val Cys Leu Arg Ser Val Ile Pro  
85 90 95  
Gly Leu Asn Asp Gln Ala Thr Pro Pro Asp Val Leu Arg Ala Tyr Gly  
100 105 110  
Phe Tyr Val Cys Pro Gly Pro Pro Asn Asn Glu Glu Tyr Cys Gly Asn  
115 120 125  
Pro Gln Asp Phe Phe Cys Lys Gln Trp Ser Cys Ile Thr Ser Asn Asp  
130 135 140  
Gly Asn Trp Lys Trp Pro Val Ser Gln Gln Asp Arg Val Ser Tyr Ser  
145 150 155 160  
Phe Val Asn Asn Pro Thr Ser Tyr Asn Gln Phe Asn Tyr Gly His Gly  
165 170 175  
Arg Trp Lys Asp Trp Gln Gln Arg Val Gln Lys Asp Val Arg Asn Lys  
180 185 190  
Gln Ile Ser Cys His Ser Leu Asp Leu Asp Tyr Leu Lys Ile Ser Phe  
195 200 205  
Thr Glu Lys Gly Lys Gln Glu Asn Ile Gln Lys Trp Val Asn Gly Ile  
210 215 220  
Ser Trp Gly Ile Val Tyr Tyr Gly Ser Gly Arg Lys Lys Gly Ser  
225 230 235 240  
Val Leu Thr Ile Arg Leu Arg Ile Glu Thr Gln Met Glu Pro Pro Val  
245 250 255  
Ala Ile Gly Pro Asn Lys Gly Leu Ala Glu Gln Gly Pro Pro Ile Gln  
260 265 270  
Glu Gln Arg Pro Ser Pro Asn Pro Ser Asp Tyr Asn Thr Thr Ser Gly  
275 280 285  
Ser Val Pro Thr Glu Pro Asn Ile Thr Ile Lys Thr Gly Ala Lys Leu  
290 295 300  
Phe Ser Leu Ile Gln Gly Ala Phe Gln Ala Leu Asn Ser Thr Thr Pro  
305 310 315 320  
Glu Ala Thr Ser Ser Cys Trp Leu Cys Leu Ala Ser Gly Pro Pro Tyr  
325 330 335

Tyr Glu Gly Met Ala Arg Gly Gly Lys Phe Asn Val Thr Lys Glu His  
                  340                     345                     350  
 Arg Asp Gln Cys Thr Trp Gly Ser Gln Asn Lys Leu Thr Leu Thr Glu  
                  355                     360                     365  
 Val Ser Gly Lys Gly Thr Cys Ile Gly Met Val Pro Pro Ser His Gln  
                  370                     375                     380  
 His Leu Cys Asn His Thr Glu Ala Phe Asn Arg Thr Ser Glu Ser Gln  
                  385                     390                     395                     400  
 Tyr Leu Val Pro Gly Tyr Asp Arg Trp Trp Ala Cys Asn Thr Gly Leu  
                  405                     410                     415  
 Thr Pro Cys Val Ser Thr Leu Val Phe Asn Gln Thr Lys Asp Phe Cys  
                  420                     425                     430  
 Val Met Val Gln Ile Val Pro Arg Val Tyr Tyr Pro Glu Lys Ala  
                  435                     440                     445  
 Val Leu Asp Glu Tyr Asp Tyr Arg Tyr Asn Arg Pro Lys Arg Glu Pro  
                  450                     455                     460  
 Ile Ser Leu Thr Leu Ala Val Met Leu Gly Leu Gly Val Ala Ala Gly  
                  465                     470                     475                     480  
 Val Gly Thr Gly Thr Ala Ala Leu Ile Thr Gly Pro Gln Gln Leu Glu  
                  485                     490                     495  
 Lys Gly Leu Ser Asn Leu His Arg Ile Val Thr Glu Asp Leu Gln Ala  
                  500                     505                     510  
 Leu Glu Lys Ser Val Ser Asn Leu Glu Glu Ser Leu Thr Ser Leu Ser  
                  515                     520                     525  
 Glu Val Val Leu Gln Asn Arg Arg Gly Leu Asp Leu Leu Phe Leu Lys  
                  530                     535                     540  
 Glu Gly Gly Leu Cys Val Ala Leu Lys Glu Glu Cys Cys Phe Tyr Val  
                  545                     550                     555                     560  
 Asp His Ser Gly Ala Ile Arg Asp Ser Met Ser Lys Leu Arg Glu Arg  
                  565                     570                     575  
 Leu Glu Arg Arg Arg Glu Arg Glu Ala Asp Gln Gly Trp Phe Glu  
                  580                     585                     590  
 Gly Trp Phe Asn Arg Ser Pro Trp Met Thr Thr Leu Leu Ser Ala Leu  
                  595                     600                     605  
 Thr Gly Pro Leu Val Val Leu Leu Leu Leu Thr Val Gly Pro Cys  
                  610                     615                     620

Leu Ile Asn Arg Phe Val Ala Phe Val Arg Glu Arg Val Ser Ala Val  
625 630 635 640  
Gln Ile Met Val Leu Arg Gln Gln Tyr Gln Gly Leu Leu Ser Gln Gly  
645 650 655  
Glu Thr Asp Leu  
660

<210> 5  
<211> 638  
<212> PRT  
<213> Porcine endogenous retrovirus

<400> 5  
Met His Pro Thr Leu Asn Arg Arg His Leu Pro Ile Arg Gly Gly Lys  
1 5 10 15  
Pro Lys Arg Leu Lys Ile Pro Leu Ser Phe Ala Ser Ile Ala Trp Phe  
20 25 30  
Leu Thr Leu Ser Ile Thr Ser Gln Thr Asn Gly Met Arg Ile Gly Asp  
35 40 45  
Ser Leu Asn Ser His Lys Pro Leu Ser Leu Thr Trp Leu Ile Thr Asp  
50 55 60  
Ser Gly Thr Gly Ile Asn Ile Asn Asn Thr Gln Gly Glu Ala Pro Leu  
65 70 75 80  
Gly Thr Trp Trp Pro Asp Leu Tyr Val Cys Leu Arg Ser Val Ile Pro  
85 90 95  
Ser Leu Thr Ser Pro Pro Asp Ile Leu His Ala His Gly Phe Tyr Val  
100 105 110  
Cys Pro Gly Pro Pro Asn Asn Gly Lys His Cys Gly Asn Pro Arg Asp  
115 120 125  
Phe Phe Cys Lys Gln Trp Asn Cys Val Thr Ser Asn Asp Gly Tyr Trp  
130 135 140  
Lys Trp Pro Thr Ser Gln Gln Asp Arg Val Ser Phe Ser Tyr Val Asn  
145 150 155 160  
Thr Tyr Thr Ser Ser Gly Gln Phe Asn Tyr Leu Thr Trp Ile Arg Thr  
165 170 175  
Gly Ser Pro Lys Cys Ser Pro Ser Asp Leu Asp Tyr Leu Lys Ile Ser

180	185	190
Phe Thr Glu Lys Gly Lys Gln Glu Asn Ile Leu Lys Trp Val Asn Gly		
195	200	205
Met Ser Trp Gly Met Val Tyr Tyr Gly Gly Ser Gly Lys Gln Pro Gly		
210	215	220
Ser Ile Leu Thr Ile Arg Leu Lys Ile Asn Gln Leu Glu Pro Pro Met		
225	230	235
Ala Ile Gly Pro Asn Thr Val Leu Thr Gly Gln Arg Pro Pro Thr Gln		
245	250	255
Gly Pro Gly Pro Ser Ser Asn Ile Thr Ser Gly Ser Asp Pro Thr Glu		
260	265	270
Ser Ser Ser Thr Thr Lys Met Gly Ala Lys Leu Phe Ser Leu Ile Gln		
275	280	285
Gly Ala Phe Gln Ala Leu Asn Ser Thr Thr Pro Glu Ala Thr Ser Ser		
290	295	300
Cys Trp Leu Cys Leu Ala Ser Gly Pro Pro Tyr Tyr Glu Gly Met Ala		
305	310	315
Arg Arg Gly Lys Phe Asn Val Thr Lys Glu His Arg Asp Gln Cys Thr		
325	330	335
Trp Gly Ser Gln Asn Lys Leu Thr Leu Thr Glu Val Ser Gly Lys Gly		
340	345	350
Thr Cys Ile Gly Lys Val Pro Pro Ser His Gln His Leu Cys Asn His		
355	360	365
Thr Glu Ala Phe Asn Gln Thr Ser Glu Ser Gln Tyr Leu Val Pro Gly		
370	375	380
Tyr Asp Arg Trp Trp Ala Cys Asn Thr Gly Leu Thr Pro Cys Val Ser		
385	390	395
Thr Leu Val Phe Asn Gln Thr Lys Asp Phe Cys Ile Met Val Gln Ile		
405	410	415
Val Pro Arg Val Tyr Tyr Pro Glu Lys Ala Ile Leu Asp Glu Tyr		
420	425	430
Asp Tyr Arg Asn His Arg Gln Lys Arg Glu Pro Ile Ser Leu Thr Leu		
435	440	445
Ala Val Met Leu Gly Leu Gly Val Ala Ala Gly Val Gly Thr Gly Thr		
450	455	460
Ala Ala Leu Val Thr Gly Pro Gln Gln Leu Glu Thr Gly Leu Ser Asn		

465	470	475	480
Leu His Arg Ile Val Thr Glu Asp Leu Gln Ala Leu Glu Lys Ser Val			
485	490	495	
Ser Asn Leu Glu Glu Ser Leu Thr Ser Leu Ser Glu Val Val Leu Gln			
500	505	510	
Asn Arg Arg Gly Leu Asp Leu Leu Phe Leu Lys Glu Gly Gly Leu Cys			
515	520	525	
Val Ala Leu Lys Glu Glu Cys Cys Phe Tyr Val Asp His Ser Gly Ala			
530	535	540	
Ile Arg Asp Ser Met Asn Lys Leu Arg Glu Arg Leu Glu Lys Arg Arg			
545	550	555	560
Arg Glu Lys Glu Thr Thr Gln Gly Trp Phe Glu Gly Trp Phe Asn Arg			
565	570	575	
Ser Leu Trp Leu Ala Thr Leu Leu Ser Ala Leu Thr Gly Pro Leu Ile			
580	585	590	
Val Leu Leu Leu Leu Leu Thr Val Gly Pro Cys Ile Ile Asn Lys Leu			
595	600	605	
Ile Ala Phe Ile Arg Glu Arg Ile Ser Ala Val Gln Ile Met Val Leu			
610	615	620	
Arg Gln Gln Tyr Gln Ser Pro Ser Ser Arg Glu Ala Gly Arg			
625	630	635	

<210> 6

<211> 704

<212> DNA

<213> Porcine endogenous retrovirus

<400> 6

aatgaaaatgca acctgactct cccagaaccc aggaagttaa taagaagctc	60
ttaaatgcctt cgaattccag accctgttcc ctataggtaa aagatcatac ttttgctgt	120
tttaaaatat gctttctgct ctgtacaaaa ctttgtggaa ggggaaaaac aggcccctga	180
gtatgtgcct ctatgcttga aacttcttga aactgctcct aactgcttgt ttggcttcgt	240
taaacacctgct tgcatataagat aaaaagagga gaagtcaatt gcctaacgga ccccaagtaag	300
atcggtgtta ccacaaaaatg ttgaaacaca tatcttggtg acaacatgtc tccccccaccc	360
cgtaaacatgc gcaaatgtgt aactctaaaa caatttaaat taattgtcc acgaagcgcg	420
ggctctcgaa gttttaaattt gactggttt tgatattttg aaatgattgg tttgttaaagc	480

gcgggcttg ttgtgaaccc cataaaagct gtcccgactc cacactcggg gccgcagtcc	540
tctaccctg cgtggtgtac gactgtggc cccagcgcgc ttgaaataaa aatccttttg	600
ctgttgcataaagaccgct tctcgtgagt gattaagggg agtcgcctt tccgagcctg	660
gaggttctt ttgcttagtct tacatttggg ggctcgtccg ggat	704

<210> 7

<211> 633

<212> DNA

<213> Porcine endogenous retrovirus

<400> 7

aatgaaagga tgaaaataca acctaagcta atgagaagct taaaattgtt ctgaattcca	60
gagtttgttc cttataaggta aaagattagg tttttgctg ttttaaaata tgccgaaagta	120
aaataggccc tgagtacatg tctctaggca tgaaacttct tgaaactatt tgagataaca	180
agaaaaaggga gtttctaact gcttggtagt ctctgtaaa actgggtgcg ccataaagat	240
gttggaaatgt tgatacacat atcttggta caacatgtct cccccccccca gaaacatgcg	300
caaatgtgta actctaaaac aatttaaatt aattggtcca cgaagcgcgg gctctcgaag	360
ttttaaattt actgggttgt gatatttga aatgattggt ttgtaaagcg cgggctttgt	420
tgtgaacccc ataaaagctg tcccgactcc acactcgggg ccgcagtcct ctaccctgc	480
gtgggtgtacg actgtgggcc ccagcgcgc tggaaataaa atcctcttgc tggttgcatac	540
aagaccgctt ctcgtgagtg attaagggg gtcgccttt ccgagcctgg aggttctttt	600
tgctggctt acatttgggg gtcgtccgg gat	633

<210> 8

<211> 20

<212> DNA

<213> Porcine endogenous retrovirus

<400> 8

tggaaagatt ggcaacagcg

20

<210> 9

<211> 20

<212> DNA

<213> Porcine endogenous retrovirus

<400> 9

agtgatgtta ggctcagtg 20

<210> 10

<211> 20

<212> DNA

<213> Porcine endogenous retrovirus

<400> 10

tttccttttgc tcaattccgg 20

<210> 11

<211> 20

<212> DNA

<213> Porcine endogenous retrovirus

<400> 11

tactttatcg ggtcccactg 20

<210> 12

<211> 20

<212> DNA

<213> Porcine endogenous retrovirus

<400> 12

ctgacctgga tttagaactgg 20

<210> 13

<211> 20

<212> DNA

<213> Porcine endogenous retrovirus

<400> 13

atgttagagg atggcctgg 20

<210> 14

<211> 22  
<212> DNA  
<213> Porcine endogenous retrovirus

<400> 14  
acctcgagac tcggtggaag gg

22

<210> 15  
<211> 24  
<212> DNA  
<213> Porcine endogenous retrovirus

<400> 15  
ctgggttctg ggagggttag gttg  
<210> 16  
<211> 24  
<212> DNA  
<213> Porcine endogenous retrovirus

24

<400> 16  
acgtactgga ggagggtcac ctga  
<210> 17  
<211> 24  
<212> DNA  
<213> Porcine endogenous retrovirus

24

<400> 17  
gtcccgaaacc cttataacct cttg  
<210> 18  
<211> 1980  
<212> DNA  
<213> Porcine endogenous retrovirus

24

<400> 18

atgcatccca cgttaagccg gcgccacctc ccgattcggg gtggaaagcc gaaaagactg	60
aaaatccccct taagcttcgc ctccatcgcg tggttcctta ctctgtcaat aactcctcaa	120
gttaatggta aacgccttgt ggacagcccg aactcccata aacccttatac tctcacctgg	180
ttacttaactg actccggta aggtattaat attaacagca ctcaggggga ggctcccttg	240
gggaccttgtt ggcctgaatt atatgtctgc cttcgatcag taatccctgg tctcaatgac	300
caggccacac ccccccgtgt actccgtgct tacgggtttt acgtttgccc agggccccca	360
aataatgaag aatattgtgg aaatccttag gatttctttt gcaagcaatg gagctgcgt	420
acttctaattg atgggaattt gaaatggcca gtctctcagc aagacagagt aagttactct	480
tttgttaaca atccttaccag ttataatcaa tttaattatg gccatggag atggaaagat	540
tggcaacagc gggtacaaaa agatgtacga aataagcaaa taagctgtca ttcttagac	600
ctagattact taaaaataag tttcaactgaa aaaggaaaac aagaaaatat tcaaaagtgg	660
gtaaatggta tgtcttgggg aatagtgtac tatagaggct ctggagaaa gaaaggatct	720
gttctgacta ttcccttcag aatagaaact cagatggAAC ctccgggtgc tataggacca	780
aataagggtt tggccgaaca aggacctcca atccaagaac agaggccatc tcctaacc	840
tctgattaca atacaacccctc tggatcagtc cccactgagc ctaacatcac tattaaaaca	900
ggggcgaaac ttttaacct catccaggga gctttcaag ctcttaactc cacgactcca	960
gaggctacct cttcttgttg gctttctta gcttcggggcc caccttacta tgagggaatg	1020
gctagaggag gaaaattcaa tgtgacaaag gaacatagag accaatgtac atggggatcc	1080
caaaataagc ttacccttac tgaggttct ggaaaaggca cctgcataagg gatggttccc	1140
ccatcccacc aacacccttgc taaccacact gaagccctta atcgaacccctc tgagagtca	1200
tatctggta ctggtttatga caggtgggtgg gcatgtataa ctggattaac cccttgcgtt	1260
tccaccttgg ttttcaaccca aactaaagac ttttgcgtta tggtccaaat tggcccccgg	1320
gtgtactact atcccggaaaa agcagtcctt gatgaatatg actatagata taatcgccca	1380
aaaagagagc ccatatccct gacactagct gtaatgtcg gattggaggt ggctgcaggc	1440
gtggggacag gaacggctgc cctaattcaca ggaccgcaac agctggagaa aggacttagt	1500
aacctacatc gaattgtaac ggaaaatctc caagccctag aaaaatctgt cagtaaccc	1560
gaggaatccc taacccctt atctgaagtg gttctacaga acagaagggg gtttagatctg	1620
ttatttctaa aagaaggagg attatgtgtaa gccttaaagg aggaatgtg tttttatgtg	1680
gatcattcag gggccatcag agactccatg aacaagctta gagaaagggtt ggagaagcgt	1740
cgaaggggaaa aggaaaactac tcaagggtgg tttgagggat ggtcaacag gtctccctgg	1800
ttggctaccc tactttctgc tttaacagga cccttaatag tcctccctt gttactcaca	1860
gttggccat gtattattaa caagtttaatt gccttcattt gagaacgaat aagtgcagtc	1920
cagatcatgg tacttagaca acagtaccaa agcccgctta gcagagaagc tggcccgctag	1980

&lt;210&gt; 19

&lt;211&gt; 7362

&lt;212&gt; DNA

&lt;213&gt; Porcine endogenous retrovirus

&lt;400&gt; 19

tacttcttgg ggaagaccct	60
gggctgctaa ctgggtcttg	
gctggtccta gtgaaaggat	
gaaaatgcaa cctgactctc	120
ccagaaccca ggaagttaat	
aagaagctct aaataatgaa	
aggataaaa tgcaacctga	180
ctctcccaga acccaggaag	
ttaataagaa gctctaaatg	
ccctcgaaatt ccagaccctg	240
ttccctatag gtaaaagatc	
atacttttg ctgttttagg	
gcttgcttc tgctctgtac	300
aaaactttgt ggaaggggaa	
aaacaggccc ctgagtatgt	
gcctctatgc ttgaaaacttc	360
ttgaaaactgc tcctaactgc	
ttgttggct tctgtaaacc	
tgcttgcat a gataaaaaag	420
aggagaagtc aattgcctaa	
cggacccca g taagatcggg	
tgtaccacaa aatgttgaaa	480
cacatatctt ggtgacaaca	
tgtctcccc accccgaaac	
atgcgaaat gtgtaaactct	540
aaaacaattt aaattaattt	
gtccacgaag cgccggctct	
cgaagttta aattgactgg	600
tttgtgatat ttgaaatga	
ttggttgt a aagcgcgggc	
tttgtgtga accccataaa	660
agctgtcccg actccacact	
cggggccgca gtcctctacc	
cctgcgtggt gtacgactgt	720
gggccccagc gcgcgtggaa	
taaaaatcct cttgcgtt	
gcatcaagac cgcttctcg	780
gagtgattaa ggggagtcgc	
cttttccgag cttggaggtt	
cttttgcta gtcttacatt	840
tggggctcg tccggatct	
gtcgccgcca cccctaacac	
ccgagaaccg acttggaggt	900
aaaaaggatc ctcttttaa	
cgtgtatgca tgtaccggcc	
ggcgctctg ttctgagtgt	960
ctgtttcag tgggtgcgcgc	
tttcggttt cagctgtcct	
ctcagaccgt aaggactggg	1020
ggactgtgat cagcagacgt	
gctaggagga tcacaggct	
ccacctctgg ggacgccccg	1080
ggaggtgggg agagccaggg	
acgcctggc gtctccttct	
gtcggtcaga ggaccgagtt	1140
ctgttgtga agcgaaagct	
tccccctccg cggccgtccg	
actctttgc ctgcttgcgg	1200
aagacgcgga cgggtcgcgt	
gtgttggat ctgttggtt	
ctgtttgtg tgtcttgc	1260
ttgtgcgtcc ttgtctacag	
tttaaatatg ggacagacgg	
tgacgacccc tcttagttt	1320
actctcgacc attggactga	
agttaaatcc agggctcata	
atttgcagt tcaggttaag	1380
aaggacctt ggcagacttt	
ctgtgtctct gaatggccga	
cattcgatgt tggatggcca	1440
tcagagggga ctttaattc	
tgagattatc ctggctgtta	
aagcaattat tttcagact	1500
ggacccggct ctcattccaa	
tcaggagccc tatatcctta	
cgtggcaaga tttggcagag	1560
gatcctccgc catggttaa	
accttggctg aataagccaa	
gaaagccagg tccccgaatt	1620
ctggctctt gagagaaaaa	
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&lt;213&gt; Porcine endogenous retrovirus

&lt;400&gt; 20

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&lt;400&gt; 21

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&lt;210&gt; 22

&lt;211&gt; 4918

&lt;212&gt; DNA

## &lt;213&gt; Porcine endogenous retrovirus

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<211> 7873

<212> DNA

<213> Porcine endogenous retrovirus

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